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758	7590	11/24/2004	EXAMINER	
FENWICK & WEST LLP SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041			HO, THOMAS M	
			ART UNIT	PAPER NUMBER
			2134	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/887,157

Applicant(s)

TOH ET AL.

Examiner

Thomas M Ho

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 21 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. **Claims 1-67 are pending.**

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10, 13, 15, 17-21, 23-31, 34, 36, 38-42, 44-54, 57, 59, 61-65, 67 are rejected under 35 U.S.C. 102(e) as being anticipated by Kara, US patent 5,982,506.

In reference to claim 1:

Kara discloses a computer implemented method for securely delivering a document from a sender to a recipient, the method comprising an operations center (OC) performing the steps of:

- Associating the sender with a sender public key from a sender public-private key pair, where the sender is associated with the public key issued to it. (Figure 3b, Item 3103)

Art Unit: 2134

- using the sender public key, in conjunction with the sender using the sender private key to authenticate the sender, where the public key is used to generate an encryption of the document and associated cipher. (Column 4, lines 37-51) and where the private is needed to decrypt the document for verification purposes, (Column 6, line 60) – (Column 6, line 5), and this verification is performed by the certification system. (Column 9, lines 42-48)
- Establishing a first secure connection between the sender and the OC, where the secure connection is the encrypted transmission by the sender (Figure 3, Item 3104-3106)
- Associating the recipient with a recipient public key from a recipient public-private key pair, where the recipient public key is the same public private key pair used to encrypt the transmission. (Column 5, lines 20-38)
- Providing one from a group comprising a recipient public key and an escrow encryption key to the sender to secure a delivery, where the public key is used to secure the delivery through encryption (Figure 3b, Item 3103-3104), the delivery comprising at least the document. (Figure 3b, 3110, 3104)

In reference to claim 2:

Kara discloses the method of claim 1 further comprising the OC performing the steps of:

- Receiving at least a portion of the delivery from the sender via the first secure connection (Figure 3b, Item 3110)
- Storing the at least a portion of the delivery, where the portion of the delivery is stored in order to be compared. (Figure 3b, Item 3112)

Art Unit: 2134

- Using the recipient public key, in conjunction with the recipient using the recipient private key, to authenticate the recipient, where the recipient public key and private key is the same key established by the certification system for the sender, and is used by the certification system to authenticate the recipient. (Column 5, lines 1-15)
- Establishing a second secure connection between the recipient and the OC, where the second secure connection is created when the certification system transmits the certification indicia to the recipient. (Figure 3b, Item 3116)
- Transmitting the at least a portion of the delivery to the recipient via the second reliable connection, where the portion of the delivery contains the certification indicia. (Figure 3b, Item 3116)

In reference to claim 3:

Kara discloses the method of claim 2 further comprising, in response to the recipient receiving the at least a portion of the delivery, the OC performing one from a group of steps comprising:

- Notifying the sender to form a secure connection to the recipient to transmit the remainder of the delivery, where the notification to the sender to form the secure connection starts with inputting the document in a certified transmission (Figure 5a, Item 5001) and then later forming the secure connection (Figure 5a, Items 5005-5008)
- Notifying the recipient to form a secure connection to the sender to transmit the remainder of the delivery, where the notification occurs from the sending site

Art Unit: 2134

(Figure 5b, Item 5201), and the secure connection is thereafter formed. (Figure 5b, Item 5202)

In reference to claim 4:

Kara discloses the method of claim 3 further comprising the OC performing one from a group of steps comprising:

- Receiving a first acknowledgment from the sender that the remainder of the delivery was transmitted to the recipient (Figure 3a, Item 3010)
- Receiving a second acknowledgment from the recipient that the remainder of the delivery was received by the recipient. (Figure 3a, 3012)

In reference to claim 6:

Kara (Figure 3b) discloses the method of claim 2 wherein at least one of the first and second secure connections comprises a virtual private network connection formed by using a VPN encryption key at a layer selected from a group comprising an application layer, a presentation layer, and a session layer of the Open Systems Interconnect reference model, where its performed on an application to application basis and hence in an application layer stratum.

In reference to claim 7:

Kara discloses the method of claim 2 wherein at least one of the first and second secure connections comprises a virtual private network connection formed by using at least one key from a group comprising the sender public key, the recipient public key, an OC

Art Unit: 2134

public key, and a session key, where the virtual private network connection (Figure 1) is formed using the OC, certification system public key. (Figure 3a, Items 3005-3008)

In reference to claim 8:

Kara (Figure 1) discloses the method of claim 3 wherein the secure connection between the sender and the recipient comprises one from a group comprising a direct line, a virtual private network connection, and a Secure Socket Layer connection, where the connection is a virtual private connection.

In reference to claim 13:

Kara discloses the method of claim 2 further comprising the OC performing the step of: Providing a delivery notification to the recipient that the OC is storing the at least a portion of the delivery for the recipient, where the certification system alerts the recipient site that the encrypted document will be sent to it, serving as a notification to the later step that the certification system contains the certification indicia. (Figure 3b, Item 3110)

In reference to claim 15:

Kara discloses the method of claim 1 further comprising the OC performing the steps of:

- Storing the sender public key and the recipient public key in a database, where the sender public and recipient public key are stored in the database of the certification system. (Column 4, lines 37-42)

Art Unit: 2134

- Providing the sender and the recipient access to the database, where both the sender and recipient have access to the keys in the database, in accepting the distribution of keys. (Column 4, lines 37-42) & (Column 5, lines 23-38)

In reference to claim 17:

Kara discloses the method of claim 1 further comprising the OC facilitating a direct and secure connection between the sender and the recipient by the OC performing the steps of:

- Using the recipient public key, in conjunction with the recipient using the recipient private key, to authenticate the recipient, where the recipient is also authenticated to the certification system, the OC, by the generation of a cipher. (Column 5, lines 1-15)
- Receiving a request from the sender to transmit the delivery directly to the recipient, where the sender establishes a communication link directly with the recipient site. (Figure 5a, Item 5008)
- Providing one from a group comprising:
 - A notice to the sender that the recipient is available to directly accept the delivery and a notice to the recipient that the sender is available to transmit the delivery directly to the recipient, where the notice the recipient is made in the establishment of the link, and where the message for transmission is made thereafter (Figure 5a, Item 5009)

In reference to claim 23:

Art Unit: 2134

Kara(Column 5, lines 15-22) & (Column 4, lines 45-51) discloses the method of claim 18 further comprising the OC performing the step of:

- Time-stamping and recording the sender acknowledgment and the recipient acknowledgment, where (Column 4, lines 45-51) discloses the sender acknowledgment timestamp, and (Column 5, lines 15-22) disclose the receiver acknowledgment timestamp.
- Claims 24, 45 are substantially similar to the method disclosed in claim 1 and is rejected for the same reason.
- Claims 25, 46 are rejected for the same reasons as claim 2 and its constituent sub claims.
- Claims 26, 38, 47 are rejected for the same reasons as claim 3 and its constituent sub claims.
- Claims 18, 27, 39, 48, 62 are rejected for the same reasons as claim 4 and its constituent sub claims.
- Claims 9, 19, 29, 40, 50, 53, 63 are rejected for the same reasons as claim 6 and its constituent sub claims.
- Claims 10, 21, 30, 31, 42, 51, 54, 65 are rejected for the same reasons as claim 7 and its constituent sub claims.
- Claims 20, 28, 41, 49, 52, 64 are rejected for the same reasons as claim 8 and its constituent sub claims.
- Claims 34, 57 are rejected for the same reasons as claim 13 and its constituent sub claims.

Art Unit: 2134

- Claims 36, 59 are rejected for the same reasons as claim 15 and its constituent sub claims.
- Claim 61 is rejected for the same reasons as claim 17 and its constituent sub claims.
- Claims 44, 67 are rejected for the same reasons as claim 23 and its constituent sub claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11,12, 14, 16, 22, 32, 33, 35, 37, 43, 55, 56, 58, 60, 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kara.

In reference to claim 11:

Kara discloses the method of claim 2 wherein the delivery further comprises at least one from the group comprising:

- A message digest comprising one of a group of hash of the document, a hash of the document encrypted with a document encryption key, a hash of the document encrypted with the encryption key, and a hash of the document encrypted with the sender private key from the sender public-private key pair,

where the message digest is composed of an encrypted certification indicia.

(Column 5, lines 22-28)

- Kara fails to explicitly disclose the use of a digital signature signed by the sender private key from the sender public-private key pair.
- Kara instead discloses a digital cipher containing the identification information encrypted (in effect very similar to a digital signature), but encrypted with a public key as opposed to a private key.
- The Examiner takes official notice that digital signatures were well known to those of ordinary skill in the art at the time of invention. The advantage of a digital signature is that, by signing a message with a private key, one can be assured that the originator of the message is who he or she purports to be. The main idea is that anyone can decrypt the message, but only one person can encrypt it.
- It would have been obvious to one of ordinary skill in the art to have used a digital signature in order to allow the identity of the sender of the document to be quickly validated in a single decryption.

In reference to claim 12:

Kara discloses the method of claim 11 further comprising the OC performing the steps of:

- Storing at least one of the message digest and the digital signature, where the message digest is the digital indicia. (Figure 5, lines 22-28)
- Time stamping and recording an acknowledgement from the recipient that the at least a portion of the delivery was received. (Column 5, lines 15-22)

In reference to claim 14:

Kara discloses the method of claim 2 further comprising the OC performing the step of:

Notification to the sender of an event selected from a group comprising:

- transmission of the at least a portion of the delivery to the recipient (Figure 3b, Item 3110)
- receipt of an acknowledgment from the recipient that the at least a portion of the delivery was received, where the acknowledgement is the checksum of the received document. (Figure 3c, Item 3204)
- receipt of an acknowledgment from the recipient that the document was successfully decrypted (Figure 3c, Item 3210)
- Kara fails to disclose a notification of a failure of the OC to transmit the at least a portion of the delivery to the recipient within a specified time period
- a notification of a failure of the OC to locate a valid public key for the recipient
- a notification of a failure of the OC to transmit the at least a portion of the delivery to the recipient because the recipient is unable to access the recipient private key.

The Examiner takes official notice that notifications to the sender of a particular failure, and disclosing the nature of that failure are well known and commonly used in the art.

They are better known as “error messages”.

Art Unit: 2134

It would have been obvious to one of ordinary skill in the art at the time of invention to disclose an error messages to indicate a notification of failure of events that were to take place in order to allow their initiator, the sender, to know what went wrong and to take appropriate action.

In reference to claim 16:

Kara fails to disclose the method of claim 15 further comprising the OC performing at least one of the steps of:

- Revoking the sender public key
- Revoking the recipient public key
- Authorizing the generation of a new public-private key pair for at least one of a group comprising the sender, the recipient and a new user.

The Examiner takes official notice that revoking the public keys and authorizing the generation of new public private key pairs is well known in the art. This is called Key revocation and is a necessary aspect of public and private key cryptography as old keys are used and their security compromised. Examples can be found in US patent, 5261002 and 6044462.

It would have been obvious to one of ordinary skill in the art at the time of invention to revoke a sender public key, revoke a recipient public key, and authorize the generation of new public-private key pairs in order to “refresh” the keys used in encryption and secure

Art Unit: 2134

transactions should the keys ever be compromised, or to prevent the keys from being compromised by changing them.


- Claims 22, 32, 43, 55, 66 are rejected for the same reasons as claim 11 and its constituent sub claims.
- Claims 33, 56 are rejected for the same reasons as claim 12 and its constituent sub claims.
- Claims 35, 58 are rejected for the same reasons as claim 14 and its constituent sub claims.
- Claims 37, 60 are rejected for the same reasons as claim 16 and its constituent sub claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M Ho whose telephone number is (703)305-8029. The examiner can normally be reached on M-F from 8:30am – 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached at (703)308-4789. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5484.


GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Art Unit: 2134

October, 21st, 2004

TMH